

# Well-A-Syst

A voluntary program to assist private drinking well users evaluate and modify practices to protect their drinking water supply

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## Pesticide Management

### Why should you be concerned?

Pesticides must be managed properly to protect people and water quality. Pesticides work by interfering with the life processes of plants and animals. Some pesticides are also toxic to humans; when found in water supplies, pesticides may cause chronic health problems (such as cancer and birth defects) from prolonged exposure.

1. Do you use or store pesticides on your property?
2. Do you have pesticide containers that are damaged, leaking, and/or rusting?
3. Do you mix, apply or store pesticides within 150 feet of any water supply system (well, cistern, etc.)?
4. Do you fill your sprayer tank directly from a drinking water supply system?
5. Do you leave your sprayer tank unattended while filling?
6. Do you rinse out your sprayer tank near your water supply or a water body?



If you answered “yes” or you do not know the answer to any of these questions, use this worksheet to address those issues. The information will help you develop a voluntary plan of action to reduce the contamination risks to your well.

### 1. Do you use or store pesticides on your property?

It is important to balance cost, expected use, and potential risks associated with storing pesticides. Risks include leaking containers, inadequately protected storage sites, and disposal of unwanted or unusable pesticides.

The storage facility should be located downhill from your well and away from surface waters. If you store pesticides on a regular basis, containment becomes important in the event of an accidental spill. Build a storage system with a concrete floor and secondary containment.

Follow label instructions for use, storage, and disposal of pesticides. Take the pesticide applicator training and obtain license certification. In addition, USDA requires private pesticide applicators to keep a record of all restricted use pesticide applications.

## 2. Do you have pesticide containers that are damaged, leaking and/or rusting?

A major concern about the condition of pesticide containers is the potential for leaks and spills. Monitor your pesticide container for leaks; if you have containers that are rusting or have holes or tears, the pesticide should be used or disposed of immediately. Information about pesticide disposal can be obtained from the CSU Cooperative Extension or the Colorado Department of Agriculture.

## 3. Do you mix, apply or store pesticides within 150 feet of any water supply (well, cistern, etc.)?

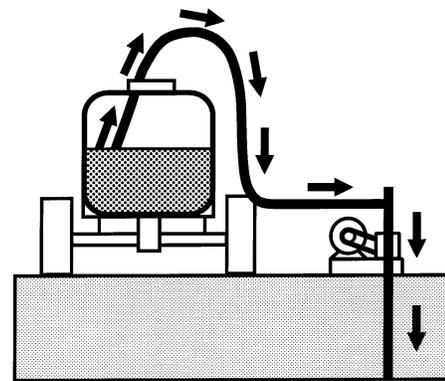
Pesticides should be stored in a secure, spill-proof facility located downhill from your water supply. Use a secondary water source on a mixing and loading pad or field mix and load with a nurse tank to reduce risks.

Use calibrated equipment when applying pesticides. Make sure your equipment applies the product according to the label rate. Each spray nozzle should be within five percent of volume required. This reduces problems such as drift, non-uniform coverage, failure of the pesticide to reach a targeted organism, and exposure to non-target organisms.

## 4. Do you fill your sprayer tank directly from a drinking water supply system?

Filling your sprayer directly from your drinking water supply system is not recommended. Use a secondary water source, such as a holding or nurse tank.

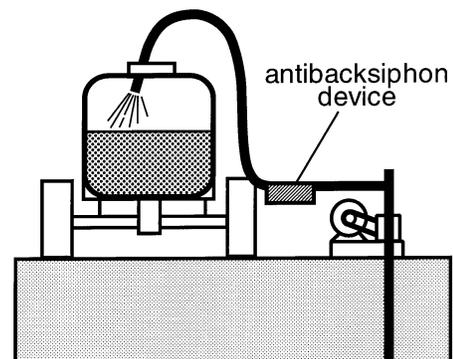
When filling your sprayer, the mixing and loading area should be at least 150 feet down slope from your well. Although this will reduce risks from spills, it will not prevent back-siphoning. Back-siphoning is when the flow of water in the hose is reversed, which can take some of the pesticide back into the well. To alleviate this problem, keep your water hose above the full level of the sprayer tank and use an anti-siphoning device. These anti-siphoning devices are relatively inexpensive and can be found at a farm supply, hardware, or irrigation supply store.



Avoid backsiphoning into water source

## 5. Do you leave your sprayer tank unattended while filling?

Careful loading and mixing of pesticides will reduce the risk to ground water. An unattended sprayer tank increases the potential for contamination from spills or overflow. Repeated spilling of pesticides due to tank overflow allows pesticides to seep into the soil and ground water. The back-siphoning of pesticides directly into the water source (if the pump stops while filling the tank) is another concern.



Keep fill hose above water level

## 6. Do you rinse out your sprayer tank near your water supply (well, cistern, etc.) or a water body?

After pesticide applications, clean all equipment away from your well and other water sources. In addition, the rinse water should be used in the next spray mix. A clean water tank or nurse tank on the sprayer is a convenient way to have clean water in the field to rinse your sprayer.

## Glossary

### *ground water*

all water below the surface of the land; ground water usually refers to subsurface water in a zone of saturation that can be pumped from a well or that flows from a spring or seep

### *holding tank*

a watertight receptacle for the retention of wastewater either before, during or after treatment; can also be used as a secondary water source

## Contacts

Natural Resources Conservation Service,  
Colorado State Office  
(303) 236-2886

CSU Cooperative Extension, State Office  
(970) 491-6172

Colorado Department of Agriculture  
(303) 239-4140

Colorado Association of Soil Conservation  
Districts  
(303) 232-6242

# Well\*A\*Syst Worksheets

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Private Drinking Water Well Management  
Cistern Management  
Site Assessment  
Septic System Management  
Household Hazardous Waste Management

Livestock Management  
Fertilizer Management  
Pesticide Management  
Petroleum Storage Management

Well\*A\*Syst is a joint project developed for Colorado by the USDA Natural Resources Conservation Service; Colorado State University Cooperative Extension; Colorado Department of Agriculture; the Colorado Department of Public Health and Environment, Water Quality Control Division; the Colorado Department of Natural Resources, State Soil Conservation Board; and the U.S. Environmental Protection Agency.

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# Assessing Your Pesticide Management

**If you answered “Yes” or did not know the answer to the previous questions**

**What you did**

**Who to call**

**What to do**

1 Consider type and quantity to be stored and develop storage and handling procedures.

2 Use or dispose of unused products according to their labels.

3 Use a hydrant located 150 feet from your well, or a water holding tank. Calibrate the sprayer before applying pesticides.

4 Use a hydrant located 150 feet from your well, or a water holding tank. Use an anti-siphoning device and do not fill directly from your well.

5 Use an anti-siphoning device and never leave your sprayer tank unattended.

6 Use a water holding tank and do not fill directly from your well.

Natural Resources Conservation Service; CSU Cooperative Extension; Soil Conservation District; Colorado Department of Agriculture

Natural Resources Conservation Service; CSU Cooperative Extension; Soil Conservation District;

CSU Cooperative Extension; Crop consultant

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